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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,231	02/19/2004	Vitaliy Fadeyev	IB-1855	7807

8076 7590 09/05/2007
LAWRENCE BERKELEY NATIONAL LABORATORY
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UNIVERSITY OF CALIFORNIA
BERKELEY, CA 94720

EXAMINER

GIESY, ADAM

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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09/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,231

Applicant(s)

FADEYEV ET AL.

Examiner

Adam R. Giesy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,10-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5,6 and 10-29 is/are allowed.
- 6) ☒ Claim(s) 30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Singer (US Pat. No. 6,829,207 B1).

Regarding claim 30, Singer discloses a method for reconstructing a mechanical recording, comprising: a) providing a mechanical recording comprising analog audio data (see column 1, lines 10-18); b) a means for extracting metrological data from said analog audio data (see Figure 2, element 4), wherein said means for extracting comprises: i) imaging said modulated groove with digital sectioning (see column 4, lines 23-30); and c) a means for transforming said metrological data into an audio extraction of said mechanical recording (see column 2, lines 62-64).

Regarding claim 32, Singer discloses a method of extracting an audio signal from a mechanical recording having a modulated groove on a surface, wherein said groove is formed by a modulated curvilinear longitudinal profile substantially orthogonal to a plurality of sequential transverse profiles from beginning to end of the groove, said longitudinal profile at each point in the transverse profile substantially tangent to said

surface, each transverse section comprising two side surfaces and a bottom surface distanced from said surface (see Figures 2 and 3 – these figures depict the transverse profile [Fig. 2] and the longitudinal profile [Fig. 3]), comprising: i) profiling said mechanical recording to form a metrological data set comprising metrological data (see column 2, lines 12-22), said profiling step comprising: imaging said modulated groove with digital sectioning (see column 4, lines 23-30); and ii) processing said metrological data set by obtaining transverse profiles of said longitudinal profile representative of the modulated groove in three dimensions (see column 2, lines 12-22); and iii) further processing said metrological data set to reconstitute said audio signal defined by variations in the modulation of said modulated groove (see column 2, lines 41-43).

Allowable Subject Matter

3. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-3, 5, 6, and 10-29 are allowable over the prior art of record.

Independent claim 1 is allowable since none of the prior art, alone or in combination, recites a method of extracting an audio signal from a mechanical recording having a modulated groove on a surface, wherein said groove is formed by a modulated curvilinear longitudinal profile substantially orthogonal to a plurality of sequential transverse profiles from beginning to end of the groove, said longitudinal profile at each point in the transverse profile substantially tangent to said surface, each transverse section comprising two side surfaces and a bottom surface distanced from said surface, comprising: i) profiling said mechanical recording to form a metrological data set

comprising metrological data, said profiling step comprising: confocally imaging said modulated groove; and ii) processing said metrological data set by obtaining transverse profiles of said longitudinal profile representative of the modulated groove in three dimensions; and iii) further processing said metrological data set to reconstitute said audio signal defined by variations in the modulation of said modulated groove.

Claims 2, 3, 5, 6, and 10-29 are allowed as being dependent upon the aforementioned independent claim 1.

The closest prior art by Singer (US Pat. No. 6,829,207 B1) discloses a method of digitally reconstructing a phonograph record using physical measurements. Singer does not disclose confocal imaging in order to read the groove wobble in the phonograph record.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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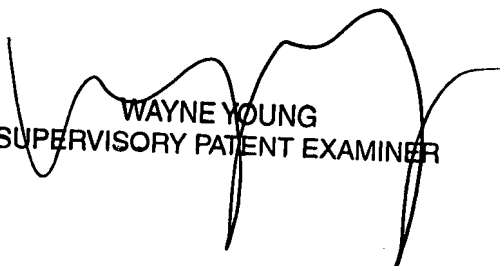
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 8/28/2007



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER